

SUPPLEMENTAL TECHNICAL INSTRUCTIONS		Supplement Number	Date Issued
		81-1-D	9/21/81

National Mapping Division

SUBJECT

Digital Line Graph (DLG) Data Acquisition from 15-Minute Base Maps

BACKGROUND

DLG data is developed and distributed by the National Mapping Division (NMD) as part of the National Mapping Program.

DLGs are encoded from large-scale topographic maps. These are typically 7.5-minute quadrangles at 1:24,000 scale. In some authorized project areas, however, 7.5-minute coverage is not available and digitizing must be based on 7.5- by 15-minute or 15-minute source materials, at, for example 1:62 500. This instruction specifies standard procedures for collecting and entering such data into the Digital Cartographic Data Base (DCDB).

INSTRUCTIONS

1. DLGs will be stored in the DCDB as 7.5- by 7.5-minute cells. Data collected from 15-minute source materials will be digitized at source scale and divided into 7.5-minute units before entry into the DCDB.
2. For each 7.5-minute cell derived from a 15-minute source, Logical Record Type A will conform to the following:
 - 0 Data Element #1 will contain, in the name field (characters 1-40), the name of the quadrangle followed by an alphabetic section designation (i.e., NW, NE, SE, SW for 15-minute quadrangles, or E, W, for 7.5- by 15-minute maps).
 - 0 Data Element #7, Resolution, will reflect the scale of the source material.

The Standard Format of Logical Record Type A is detailed in "Computer Files and Attribute Codes for Digital Line Graphs (January 1980)", and modified by the RES memorandum of May 15, 1981, subject "Date of DLG Data in the Digital Cartographic Data Base."

APPLIES TO

All DLGs resident in the NMD Digital Cartographic Data Base.

ISSUED TO

PO, IDS, EMC, MCMC, RMMC, WMC

APPROVED BY

R. B. Southard
Chief, National Mapping Division

cc: NMD Files, RES, Digital Steering Committee

In Reply Refer To:
EGS-Mail Stop 510

Sep 24, 1981

Memorandum

To: Chief, Eastern Mapping Center
Chief, Mid-Continent Mapping Center
Chief, Rocky Mountain Mapping Center
Chief, Western Mapping Center

From: Acting Assistant Division Chief for Research

Subject: Topographic Instruction on Digital Line Graph (DLG) Data
Acquisition from 15-minute Base Maps

In the past, standards for encoding and processing DLGs from other than 7.5-minute quadrangle maps have not been explicitly defined. As a result, DLGs have been stored in the Digital Cartographic Data Base (DCDB) as files of varying spatial extent. Additionally, the resolution of these DLGs does not consistently reflect the scale of the source material. The enclosed Topographic Instruction standardizes the DLG data base by specifying procedures for the production of DLGs from 15-minute base maps.

As described in item 1 of the enclosed instruction, data collected from 15-minute source materials will be divided into 7.5-minute units before entry into the DCDB. This will initially be accomplished using manual techniques (i.e., bisecting or quadrisecting the map and digitizing, at the source scale, each 7.5-minute unit as a separate DLG file). Ultimately, 15-minute maps will be digitized as a single file and divided using the partitioning facility of the Unified Cartographic Line Graph Encoding (UCLGE) system. This software is considered developmental and is currently being evaluated by the Office of Systems and Techniques Development. All production elements will be informed when it is available for general use.

Lowell E. Starr

Enclosure

cc: NMD Files
RES (2)
RSTM (2)
PO
IDS
E. Anderson